ABSTRACT OF THE DISCLOSURE

A mastication monitoring device 1 is provided with a probe 2 which is attached to a cheek in order to detect the concentration of reduced hemoglobin in the masticatory muscles. A photodetector 22 of the probe 2 detects light scattered in the masticatory muscles and delivers a signal of the amount of light received to a signal processing unit 3. The signal processing unit 3 computes the reduced hemoglobin concentrations (time-series changes) from the signals of the amount of light received, and further computes outputs S (time-series changes) corresponding to the time-series changes in the reduced hemoglobin concentrations. A mastication iteration counting unit 41 detects peaks in periodical changes of Sd which is the difference between the output S and the moving average value Sma of the output S and counts the peaks in periodical changes of Sd as the mastication iterations.